

Application Serial No. 09/764,630
Response dated July 1, 2004
Reply to Office Action dated May 5, 2004

REMARKS

Claims 1-11 are pending. Claims 1-11 have been rejected. Claims 1 and 8 have been amended. Claim 2 has been canceled. Claim 12 has been added.

The undersigned thanks the Examiner for the courtesy of a discussion of the claims via telephone on April 22 and April 29, 2004. It is believed that the present amendments place this application in condition for allowance. Among these amendments, the independent claims now recite that the rearwardly facing extension "does not extend outside of said cylindrical barrel in at least one position of said plunger." This limitation excludes syringes with a plunger having a long extension intended to be hand-actuated. The claims thus are directed to syringes which have a plunger that is not as long as the barrel. Such syringes require a mechanism for positively grasping the plunger so it may be withdrawn, and for that reason, normally include button-like or other structures. The present invention is generally distinguishable from this prior art for its lack of such structure.

Claim Rejections - 35 U.S.C. § 112

The Examiner has rejected claim 7 of the present application under 35 U.S.C. § 112, second paragraph. In particular, the Examiner states that claim 7 describes a coupling element as having an interior cavity, but claim 1 describes a coupling element enveloped by a coupling mechanism. The Examiner states that it is not clear how the cavity can be enveloped. Applicants have presently amended claim 1

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to remove the limitation to the extension being "within an area enveloped by a coupling mechanism." Thus, Applicants submit that this rejection is now rendered moot, and respectfully request a withdrawal of the rejection of claim 7 under 35 U.S.C. § 112, second paragraph.

The Examiner has objected to the term "substantial discontinuity" as used in claims 1 and 8 under 35 U.S.C. § 112, second paragraph. In particular, the Examiner has objected to the use of "substantial," stating that there is no guidance as to how much discontinuity would be "substantial." In response, Applicants have amended claim 1 to remove the limitation directed to a "substantial discontinuity" and have amended claim 8 to remove the term "substantial."

Claim Rejections - 35 U.S.C. § 102

The Examiner has rejected claims 1-6 and 8-11 of the present application under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,300,031, issued to Neer et al. The Examiner's rationale for rejecting claims 1-6 and 8-11 as anticipated by the Neer et al. '031 patent in the final rejection is as follows: The Examiner states that the Neer et al. '031 patent anticipates the claims in that Neer et al. "shows a syringe having a barrel, [a] plunger, [a] coupling element 96, [a] conical front, syringe mating sections comprising an annular flange fixed to the syringe body." (Office Action, May 5, 2004, p.3). The Examiner also states that in the Neer et al. '031 patent "[t]he portion of the extension enveloped by a coupling mechanism shows no substantial discontinuities

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in adjacent transverse cross-sections.” (Id.). In view of the present amendments to independent claims 1 and 8, Applicants respectfully disagree with the rejection under 35 U.S.C. § 102.

Applicants note that claim 1, as presently amended, recites a rearwardly facing extension “wherein said rearwardly facing extension is knurled.” This limitation originally appear in original 2 of the application, and thus, support for the amendment to claim 1 may be found in original claim 2, now canceled. Applicants submit that it is clear from the Figures of Neer et al., that the T-shaped button located at the end of the plunger drive ram is not knurled. Thus, Applicants submit that the Neer et al. reference fails to disclose each and every claimed element of the present application in claim 1 as presently amended. Applicants thus submit that claim 1 is not anticipated by the Neer et al. reference. Since claim 1 is not anticipated, Applicants further submit that dependent claims 2-6 are also not anticipated by the Neer et al. reference. Applicants therefore respectfully request a withdrawal of the rejection of claims 1-6 under 35 U.S.C. § 102(b).

Applicants note that claim 8, as presently amended, recites a rearward facing extension “wherein no two adjacent transverse cross-sections of said rearwardly facing extension exhibit discontinuity in area when compared one to another along the portion of said extension adapted to be within an area enveloped by a coupling mechanism” Regarding this discontinuity “within an area enveloped by a coupling

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mechanism," in the claims as presently amended, Applicants note that the rearward facing element of the Neer et al. reference includes a T- or mushroom-shaped button located at the end of the plunger drive ram (See reference number 96 in Fig. 4). As can be seen, this button includes an extension protruding from the rearward face of the syringe plunger, topped by a cap. Further, Applicants submit that it is clear, from at least Figs. 11 and 12 of Neer et al., that the T-shaped button is enveloped by two jaws 114, that extend from a point near pivot pins 115 to a point near surfaces 120. Thus, the T-shaped coupling element that is within an are enveloped by the jaws includes both the button 98 and the extension 96. Applicants further note that such a coupling element would exhibit discontinuity in area in adjacent transverse cross-sections, in that a cross-section taken at the cap of the button would be of a much greater diameter than an adjacent cross-section taken along the extension protruding from the rearward face of the syringe plunger. Thus, Applicants submit that the Neer et al. reference fails to disclose each and every claimed element of the present application in claim 8, as presently amended. Applicants thus submit that claim 8 is not anticipated by the Neer et al. reference. Since claim 8 is not anticipated, Applicants further submit that dependent claims 9-11 are also not anticipated by the Neer et al. reference. Applicants therefore respectfully request a withdrawal of the rejection of claims 8-11 under 35 U.S.C. § 102(b).

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Claim Rejections - 35 U.S.C. § 103

The Examiner has rejected claim 7 under 35 U.S.C. § 103(a) as being unpatentable over the Neer et al. '031 patent in view of U.S. Patent No. 5,007,904 (the Densmore '904 patent).

In order to establish a prima facie case of obviousness, the Examiner must show that the cited references, as combined, teach or suggest each of the elements of the claims. Claim 7 depends from independent claim 1, and thus incorporates the limitations of those claims. At least for the reasons discussed above, the Neer et al. '031 patent does not teach or suggest each and every element of claim 1. Further, it is submitted that the Densmore '904 patent fails to teach the elements of claim 1 that are missing in the Neer et al. '031 patent. More specifically, Applicants submit that, like the Neer et al. '031 patent, the Densmore '904 patent does not teach or suggest a rearward facing extension "wherein no two adjacent transverse cross-sections of said rearwardly facing extension exhibit discontinuity in area when compared one to another along the portion of said extension that falls within an area enveloped by a coupling mechanism . . . ," as presently recited in amended claim 1. Thus, regardless of whether one skilled in the art would be motivated to combine the teachings of the two references, it is submitted that any combination of the Neer et al. '031 patent and the Densmore '904 patent does not show each and every element of claim 7, as that claim is ultimately dependent on claim 1. Accordingly, withdrawal of the obviousness rejection of claim 7 is requested.

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Conclusion:

For the foregoing reasons, it is submitted that all claims are patentable and a Notice of Allowance is respectfully requested.

The Commissioner is hereby authorized to charge Deposit Account No. 23-3000 in the amount of \$770.00 for the fee set forth in 37 CFR § 1.17(e). It is believed that no additional fee is due. If, however, any additional fee or surcharges are deemed due, please charge same or credit any overpayment to Deposit Account No. 23-3000.

The Examiner is invited to contact the undersigned attorney with any questions or remaining issues.

Respectfully submitted,

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